

Amendments to the Claims

Please cancel claims 41-60 without prejudice. Please add new claims 61-80 as shown below in the Listing of Claims.

Listing of Claims

1-60. (Cancelled)

61. (New) A method for welding plastic molded bodies or plastic semifinished products, comprising irradiating a join face of said plastic molded bodies or plastic semifinished products with laser light, wherein at least one of the parts to be joined comprises a high-transparency plastic material comprising:
 - a) a plastic matrix; and
 - b) discrete laser-absorbing particles consisting of nanoscale metal oxides that are sensitive to said laser light and/or nanoscale doped metal oxides that are sensitive to said laser light, wherein said discrete laser-absorbing particles constitute 0.0001 to 0.01 weight-percent of said plastic material and have a particle size of 1 to 500 nm.
62. (New) The method of claim 61, wherein said plastic material is in the form of a molded body, semifinished product, molding compound, or lacquer and comprises a laser inscribed image.
63. (New) The method of claim 61, wherein said laser-absorbing particles have a size of 5 to 100 nm and constitute 0.001 to 0.01 weight-percent of said plastic material.
64. (New) The method of claim 61, wherein said plastic matrix comprises one or more materials selected from the group consisting of: poly(meth)acrylate; polyamide; polyurethane; polyolefins; styrene polymers and styrene copolymers; polycarbonate; silicones; polyimides; polysulfone; polyethersulfone; polyketones; polyetherketones; polyphenylensulfide; polyester; polyethylenoxide; polyurethane; polyolefins; and fluorine-containing polymers.

65. (New) The method of claim 61, wherein said plastic matrix comprises polymethyl methacrylate.
66. (New) The method of claim 61, wherein said plastic matrix comprises bisphenol-A-polycarbonate.
67. (New) The method of claim 61, wherein said plastic matrix comprises polyamide.
68. (New) The method of claim 61, wherein said laser absorbing particles are selected from the group consisting of: indium oxide; doped indium oxide; tin oxide; doped tin oxide; antimony oxide; doped antimony oxide; indium-tin oxide; and antimony-tin oxide.
69. (New) The method of claim 61, wherein said laser absorbing particles are selected from the group consisting of: indium-tin oxide or antimony-tin oxide.
70. (New) The method of claim 61, wherein said laser absorbing particles are blue indium-tin oxide.
71. (New) The method of claim 68, wherein said laser absorbing particles have a size of 5 to 100 nm and said constitute 0.001 to 0.01 weight-percent of said plastic material.
72. (New) The method of claim 68, wherein said plastic matrix comprises one or more materials selected from the group consisting of: poly(meth)acrylate; polyamide; polyurethane; polyolefins; styrene polymers and styrene copolymers; polycarbonate; silicones; polyimides; polysulfone; polyethersulfone; polyketones; polyetherketones; polyphenylensulfide; polyester; polyethylenoxide; polyurethane; polyolefins; and fluorine-containing polymers.
73. (New) The method of claim 68, wherein said plastic matrix comprises polymethyl methacrylate.

74. (New) The method of claim 68, wherein said plastic matrix comprises bisphenol-A-polycarbonate.
75. (New) The method of claim 68, wherein said plastic matrix comprises polyamide.
76. (New) A method for producing a high-transparency laser-markable and/or laser-weldable plastic material comprising a plastic matrix and discrete laser-absorbing particles consisting of nanoscale laser-sensitive metal oxides and/or nanoscale laser-sensitive doped metal oxides, wherein said discrete laser-absorbing particles constitute 0.0001-0.01 weight percent of said high-transparency laser-markable and/or laser-weldable plastic material and have a particle size of 1 to 500 nm, said method comprising mixing said nanoscale laser-sensitive metal oxides and/or said nanoscale laser-sensitive doped metal oxides with a plastic matrix under conditions of high shear.
77. (New) The method of claim 76, wherein said laser absorbing particles are selected from the group consisting of: indium oxide; doped indium oxide; tin oxide; doped tin oxide; antimony oxide; and doped antimony oxide.
78. (New) The method of claim 76, wherein said laser absorbing particles are selected from the group consisting of: indium-tin oxide or antimony-tin oxide.
79. (New) The method of claim 76, wherein said laser absorbing particles are blue indium-tin oxide.
80. (New) The method of claim 68, wherein said plastic matrix comprises one or more materials selected from the group consisting of: poly(meth)acrylate; polyamide; polyurethane; polyolefins; styrene polymers and styrene copolymers; polycarbonate; silicones; polyimides; polysulfone; polyethersulfone; polyketones; polyetherketones; polyphenylensulfide; polyester; polyethylenoxide; polyurethane; polyolefins; and fluorine-containing polymers.